

A GLOSSARY OF TERMS ASSOCIATED WITH THE WEALDEN IRON INDUSTRY

ancony	an intermediate stage in the forging of bar iron where a bloom has been hammered from the centre outwards leaving the ends thicker and unfinished, any remaining slag being concentrated in them
anvil	cast-iron block on which iron is beaten to shape it; in a forge, regularly replaced
back	<i>see</i> fireback
bar iron	low-carbon, or wrought, iron formed into long bars at a chafery; the product of an iron forge, typically weighing about 40 pounds
bay	bank forming a dam across a valley to create a pond
beam	suspended length of timber supporting scales for weighing; part of the framework of a forge hammer
bellows	device for introducing air, under pressure, into a hearth or furnace, manually operated in bloomeries but water-powered at blast furnaces, fineries and chaferies
bellow board	wooden plank(s) above and below the chamber of the bellows, one of them hinged to allow it to be depressed
bick iron	a small anvil used to form metal hoops
blast furnace	stone and brick structure in which iron ore was smelted to produce cast iron, introduced into the Weald in the late-15th century
bloom, bloom iron	a mass of low or negligible carbon iron, the product of a bloomery or of a finery
bloomery	a small furnace where iron ore was smelted, usually with manual bellows, to produce a bloom, or lump, of wrought iron; superseded by the blast furnace
bomb shell	hollow cast-iron sphere filled with gunpowder and with a fuse, fired from a mortar or howitzer
boring bar	wrought iron bar with steel abrasive bits set into the end for rotary reaming the barrels of hollow-cast cannon; the same term was later used for the tool for drilling out the barrels of solid-cast cannon
boring carriage	wheeled trolley on which a cannon was lashed for winching it towards a rotating boring bar
bosh, boshes	the lower tapering portion of a blast furnace, restricting the downward movement of the charge, situated immediately above the air-inlet tuyere
bottom plate	one of the cast-iron plates that lined the hearths in a finery or chafery
boyt, boit	a cast iron pillow on which rested the gudgeon that held the end of a rotating axle
brayes, braise	small pieces of charcoal used in forging and ore-roasting hearths
brass	an iron bearing for a rotating shaft; anciently a term for bronze, e.g. brass ordnance were actually bronze
cannon	an artillery weapon that fired a shot weighing about 64 pounds; a generic term for artillery weapons
cannon of seven	an early type of artillery weapon that fired a shot weighing about 42 pounds
carcase	a type of hollow incendiary shell made of cast iron with several holes that would emit flames from its combustible contents

cast iron	iron produced in a blast furnace that contained 4-5% carbon, making it brittle
chafery	hearth in a forge, with water-powered bellows, where a wrought iron bloom produced in a finery was heated and hammered to form bar iron
chimney back, chimney plate	<i>see</i> fireback
cinder	<i>see</i> slag
clam, clame	a tool for gripping the arms of tongs
cluttery	an alternative term for the chafery
coal	in the Wealden context this means charcoal; mineral coal was called sea coal
constable	a long, heavy iron bar
coulter	iron blade fixed in front of the share in a plough; it makes a vertical cut in the soil, which is then sliced horizontally by the sharemould
crown	a chaplet, two of which were inserted into a cannon mould, at the top and bottom, to hold the core or nowell (q.v.)
culverin	an early type of artillery weapon that fired a shot weighing about 18 pounds
demi-cannon	an early type of artillery weapon that fired a shot weighing about 32 pounds
demi-culverin	an early type of artillery weapon that fired a shot weighing about 9 pounds
dimidium	ancient term for half of a hundredweight – 56 pounds
drake	a 17th-century artillery weapon in which the powder chamber tapered towards the breech reducing the size of the charge of gunpowder and lightening the gun
drome beam	high, massive horizontal beam to which the forge hammer frame is anchored
falcon	an early type of artillery weapon that fired a shot weighing about 2 pounds
filler	iron worker responsible for charging the blast furnace with iron ore, limestone and charcoal
finer	the skilled ironworker who refined cast iron into wrought iron in the finery
finery	the hearth in the forge where the cast sows or pigs were gradually remelted and hammered to reduce their carbon content
finery plate	one of the cast-iron plates that lined the hearths in a finery
fireback	a cast-iron plate, often decorated in relief, placed behind a domestic fire to protect the rear of the fireplace from the erosive effect of the flames, and to radiate heat into the room
fore plate	one of the cast-iron plates that lined the hearths in a finery or chafery
forge	a water-powered iron mill where cast iron from a blast furnace is remelted in a finery to reduce the carbon content and then shaped in a chafery to produce usable wrought iron
founder	skilled ironworker responsible for the overall operation of the blast furnace and for casting pig iron and iron products such as cannon, round shot, firebacks etc.
fulling plate	one of the cast-iron plates that lined the hearths in a finery

furgon	an iron bar used in a forge
furnace	a chamber where iron ore was smelted to produce metallic iron; small ones in use from prehistoric times until the end of the Middle Ages were called bloomeries, large ones in use from the beginning of the early modern period were blast furnaces
granado	a hollow, cast-iron sphere with a single aperture for a fuse, which was filled with gunpowder and fired from a mortar or howitzer; <i>see also</i> bomb shell
grey cast iron	cast iron (q.v.) in which part of the carbon is in the form of graphite, making it softer and less brittle than white cast iron (q.v.)
gudgeon	the cast-iron casing that held the end of the axle of a water wheel or hammer hurst
hammer	shaped iron block fitted onto a handle or helve; water-powered hammers were regularly replaced
hammer beam	part of the framework of the forge hammer assembly; <i>see also</i> drome beam
hammerman	forge worker who formed wrought iron bars in the chafery hearth
hare plate	one of the cast-iron plates that lined the hearths in a finery or chafery
havet	an iron rod with a hook at one end
helve	the wooden beam onto which the forge hammer was fitted and which was pivoted with a hurst
hoop	wrought iron band to reinforce a wooden beam or helve
hundred	abbreviation of hundredweight
hurst	the cast-iron collar into which the forge helve was fitted and which pivoted on the gudgeons to allow the helve to be raised and dropped; regularly replaced
hutch	a large wooden container said to contain 28 bushels; the penstock and sluice controlling the flowing to a water-wheel
load	term frequently used in ironworks accounts: charcoal about 2¾ cwt; iron ore (unroasted) about 16½ cwt, (roasted) about 11¼ cwt
loam	clay moistened with water so as to form a paste capable of being moulded into any shape; specifically a composition of moistened clay and sand with an admixture of horse-dung, chopped straw, or the like, used in casting-moulds etc.
loop	an intermediate stage in the fining of cast iron into wrought iron in which the melted iron in the finery hearth was formed into a pasty mass for preliminary hammering to expel slag
loop hammer	heavy hand hammer used for shingling a loop to expel slag
loop plate	one of the cast-iron plates that lined the hearths in a finery
mandrell	a cylindrical or tapering core around which tubular forgings, such as tuyeres, were formed
mine	iron ore; <i>see also</i> siderite, pitts and veins
minepit	a vertical or tapering shaft sunk into the ground to extract iron ore, normally back-filled after use
minion	an early type of artillery weapon that fired a shot weighing about 4 pounds
morris	a cast-iron plate used to close the front of a finery hearth
morris beam	beam above the finery hearth to which the morris is attached

mould	historically, the pattern or model for a casting; nowadays the void formed from the pattern into which iron is poured to produce a casting
nowell bar	iron bar around which rope was wound and then loam was built up to form the core in the mould for a cannon that, on removal after the iron been poured and left to harden, would leave the barrel
ordnance	military supplies, in particular artillery
pig	a short ingot of cast iron made in a furnace, hence pig iron
pitty	a variety of iron ore, probably containing limestone
placket	a metal plate
plate	one of a variety of pieces of cast-iron used to line the finery and chafery hearths of a forge; also an alternative term for a fireback
pot founding, potting	casting domestic hollow-ware of iron or non-ferrous metal
quarterone	ancient term for a quarter of a hundredweight – 28 pounds
quash, quasse	a trough containing water placed close to a forge hearth or furnace
ringer	a cast-iron rod akin to a large poker
rolls	rollers, used in gardens and for crushing sugar
saker	an early type of artillery weapon that fired a shot weighing about 6 pounds
sharemould	a thick sheet of wrought iron shaped to form a plough share
shell	a hollow, cast-iron sphere with a single aperture for a fuse, which was filled with gunpowder and fired from a mortar or howitzer; <i>see also</i> bomb shell and granado
shingling	hammering the loop of iron decarburised in the finery to expel slag
shot	cannon ball or round shot
shot mould	a two-part casting, each with a hemispherical hollow, for the gravity die casting of cannon balls
siderite	the iron ore most commonly found in the Weald, it is an iron carbonate FeCO_3
sinder	<i>see</i> slag
sinder hole	the hole in the side of the finery hearth where slag released from the melted sow or pig can run out
skillet	a metal cooking utensil, usually having three or four feet and a long handle, used for boiling liquids, stewing meat, etc
slag	the waste product of the smelting process formed of the melted accumulation of the other minerals in the iron ore, known as the gangue; bloomery slag will also contain a substantial proportion of iron oxide that was not reduced to metal
sledge	a heavy hand hammer
sow	a large ingot of cast iron produced at a blast furnace, generally about half a ton in weight
spiling iron	iron rod used to block the hole through which the molten iron or slag runs from the hearth of a blast furnace
spirit plate	one of the cast-iron plates that lined the hearths in a finery or chafery
squares	bar iron (q.v.) with a square section
stocker	metal rod for unblocking a tuyere

strickle board	a board shaped on one edge with the profile of a cannon, used in the construction of the full-size model of a gun prior to manufacture of its mould
tackling	a general term for the equipment at a blast furnace or forge
truck	cast-iron wheel of a gun carriage
turn sow	a heavy metal bar used for levering a cast-iron sow
tuyere, twere	the tapering tube, usually metal in a blast furnace or forge but often ceramic in a bloomery, through which the blast of air from the bellows is directed into a hearth
tuyere plate	one of the cast-iron plates that lined the hearths in a finery or chafery
tymp	the mouth of the hearth of a blast furnace, through which the molten metal descends
tymp stone	a stone block restricting the mouth of the blast furnace hearth
vanter, vanto	fine (often sheepskin) leather flap on bellows acting as a one-way valve
veins	a variety of iron ore, of the richer sort
wain	a waggon
Walloon forge	the type of forge employed in the Weald, comprising finery and chafery hearths, developed in the southern part of what is now Belgium during the 14th and 15th centuries
white cast iron	cast iron (q.v.) in which the carbon is in the form of cementite, making it very hard and more brittle than grey cast iron (q.v)
wrought iron	iron with less than about 0.1% of carbon, essentially pure iron